

IN THE CLAIMS

Please cancel claims 18-20 as follows:

1. (Original) A multi-mode antenna comprising:
 - a radiating conductor which radiates electromagnetic waves with a plurality of frequencies,
 - a first one-port resonant circuit connected to one end of the radiating conductor,
 - a second one-port resonant circuit connected to the other end of the radiating conductor, and
 - a single feeding point which is common for the plurality of frequencies and connected to the first one-port resonant circuit.
2. (Original) The multi-mode antenna according to claim 1,
 - wherein said first one-port resonant circuit is connected between one end of said radiating conductor and a ground potential point, said second one-port resonant circuit is connected between the other end of said radiating conductor and the ground potential point, and said feeding point is a connection point at which the first one-port resonant circuit and the one end of the radiation conductor are connected.
3. (Original) The multi-mode antenna according to claim 1,
 - wherein said first one-port resonant circuit is connected between one end of said radiating conductor and said feeding point, and said second one-port resonant circuit is connected between the other end of said radiating conductor and the ground potential point.
4. (Original) The multi-mode antenna according to claim 1, further comprising a third one-port resonant circuit connected between one end of said radiating conductor and the ground potential point, wherein said first one-port resonant circuit is connected between one end of said radiating conductor and said feeding point, and said second one-port resonant circuit is connected between the other end of said radiating conductor and the ground potential point.

5. (Original) The multi-mode antenna according to claim 1,
wherein an imaginary part of admittance or impedance in view from said one end of said radiating conductor toward the radiating conductor has a value which alternates between positive and negative signs with frequency increase in said plurality of frequencies.
6. (Original) The multi-mode antenna according to claim 1,
wherein said radiating conductor is a single continuous body including ground potential.
7. (Original) The multi-mode antenna according to claim 1,
wherein said radiating conductor is spatially divided into parts which are electrically connected by a one-port resonant circuit.
8. (Original) The multi-mode antenna according to claim 1,
wherein the sum of the number of poles and the number of zeros in an equivalent circuit representation of the first one-port resonant circuit connected to said one end of said radiating conductor is equal to the number of said plurality of frequencies.
9. (Original) The multi-mode antenna according to claim 4,
wherein the sum of the number of poles and the number of zeros in equivalent circuit representations of said first one-port resonant circuit and said third one-port resonant circuit connected to said one end of said radiating conductor is equal to the number of said plurality of frequencies.
10. (Original) A multi-mode antenna comprising:
a radiating conductor which radiates electromagnetic waves with a plurality of frequencies,
a first one-port resonant circuit connected to one end of the radiating conductor,
a second one-port resonant circuit connected to the other end of the radiating conductor,

a single feeding point which is common for the plurality of frequencies and connected to the first one-port resonant circuit, and

a multilayer structure of a laminate of a plurality of substrates comprising top, intermediate and bottom layers,

wherein a part of the radiating conductor is formed on the top layer, the first one-port resonant circuit and the second one-port resonant circuit are formed on the intermediate layer, the feeding point is formed on a side surface of the multilayer structure, and a ground conductor having ground potential is formed on the bottom layer.

11. (Original) The multi-mode antenna according to claim 10,
wherein another intermediate layer is formed between said top layer and said intermediate layer and a shielding conductor to suppress electromagnetic coupling between said radiating conductor and said first one-port resonant circuit as well as said second one-port resonant circuit is formed on the another intermediate layer.
12. (Original) The multi-mode antenna according to claim 11,
wherein said shielding conductor is electrically connected to the ground potential.
13. (Original) The multi-mode antenna according to claim 10,
wherein said first one-port resonant circuit and said second one-port resonant circuit are formed as spiral conductors.
14. (Original) The multi-mode antenna according to claim 10,
wherein said first one-port resonant circuit and said second one-port resonant circuit are formed as meandering conductors.
15. (Original) The multi-mode antenna according to claim 10,
wherein said plurality of substrates are made of a radio frequency material selected from a group comprising dielectric substances and magnetic substances.
16. (Original) The multi-mode antenna according to claim 15,

wherein, when said plurality of insulating substrates are made of a dielectric substance, the plurality of substrates have different permittivity values each other and the permittivity of an upper-layer substrate is lower than that of a lower-layer substrate.

17. (Original) The multi-mode antenna according to claim 15,

wherein, when said plurality of insulating substrates are made of a magnetic substance, the plurality of substrates have different permeability values each other and the permeability of an upper-layer substrate is lower than that of a lower-layer substrate.

18-20 (Cancelled)